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ON SO-CALLED "CONGENITAL CHOREA."

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THE disease to which the term chorea has come to be almost entirely confined, viz., chorea minor, or Sydenham's chorea, is essentially a disease of childhood, the vast majority of cases occurring between the ages of five and fifteen; but common though it be in childhood, it is very rare indeed in early infancy, very few cases having been recorded under four years of age. One or two have been met with in children at the breast, and from time to time accounts appear in the medical journals of instances of "congenital chorea." In systematic treatises on medicine these cases, as a rule, are not even referred to. Hilton Fagge, however, mentioned Richter's two cases (Cases III. and IV. in the following paper) and Long Fox's case (Case V.), and apparently accepted them as true examples of chorea (*Principles and Practice of Medicine*, 1886, vol. i. p. 639). Other writers of monographs on the subject—*e. g.*, Sturges, Angel Money, and others—make no reference to any congenital cases.

Gowers (*Handbook of Diseases of the Nervous System*, vol. ii., first edition) makes no mention of congenital chorea in his article on chorea; but on page 380, under the heading of "Infantile Meningeal Hemorrhage," he says: "When the spontaneous movements constitute the most conspicuous symptom the state has been described as 'congenital chorea.'" He, therefore, evidently regards these cases as due to irritation of the motor part of the cerebral cortex due to meningeal hemorrhage at the time of birth.

A case which came under my care early in this year directed my attention toward and aroused my interest in the whole subject of congenital chorea, and raised the question whether cases really do occur which can fairly be classed as examples of this condition, or whether all recorded cases are not rather to be regarded as the result of irritative lesions of the cortical motor areas in the brain, and not as due to a merely functional instability of those centres such as presumably exists in true chorea minor. In all the cases, with the exception of one (that of Heller, which belongs to an entirely different category from the others), the disease has been of an essentially chronic nature, lasting for years or persisting through life, and this is, I think, sufficient reason for definitely separating the condition from Sydenham's chorea, the duration of which is usually to be measured by weeks, and when apparently indefinitely prolonged there are marked variations in the violence of the choreic movements at different periods of the illness, suggesting that we have not to deal with one attack of chorea, but with a series of relapses, a fresh attack commencing before the former one has passed away.

In these cases of so-called congenital chorea, on the other hand, the movements either remain apparently unaffected by the lapse of time, or there is a gradual improvement up to a certain point, though complete cessation of the movements has not been recorded; indeed, in some few cases the disease appears to have been of a progressive character.

Of late years some of these have been regarded as cases of Huntington's chorea, a disease with which they have certainly more points of resemblance than with Sydenham's.

This chronic, progressive, hereditary chorea, to which the attention of the profession was first effectually drawn by Huntington (*Philadelphia Medical and Surgical Reporter*, April 13, 1872, No. 15), although cases had been previously described, is distinguished chiefly by its affecting various members of the same family, by its usually appearing between the ages of thirty and forty, and by its hereditary nature.

Some of the children of an affected parent almost invariably suffer from the disease as soon as they reach the period of life at which it manifests itself; but, if one or two members of the family happen to escape, their children are free from the risk of incurring it; the chain is, as it were, broken.

The movements differ from those of ordinary chorea in that they are slower, and that the patients are able almost to the end to exercise a certain amount of voluntary control over them, so as to do work which does not require very careful, delicate manipulation. The gait also is peculiar, the patient walking in a reeling manner suggestive of intoxication; frequently, for instance, staggering from the sidewalk on to the road, and back again.

Other prominent features of the complaint are its progressive character and the mental deterioration with which it is accompanied, so that finally the movements become very violent and the patient quite demented, toward the end being helpless and bedridden, until death ends the scene.

A case has been recorded in which the disease began as early as eight years of age in a boy, a member of an affected family.

In cases in which an autopsy has been made some atrophy of the cerebral convolutions has been found with an increase of connective tissue—changes very similar, though less in degree (as Osler remarks, *Journal of Nervous and Mental Disease,* 1893, xx. p. 107), to those found in general paralysis of the insane. There is evidently an hereditary tendency to early degeneration of the cerebral cortex, affecting first, and for some time chiefly, the motor areas.

In one case, that of a woman whose sister suffered from similar choreic movements, outgrowths from the dura mater were found pressing upon and causing atrophy of the cortex in the Rolandic and prefrontal areas. (Macleod: *Journal of Mental Science,* July, 1881.) In cases of congenital spastic paraplegia due to meningeal hemorrhage a wasted condition of the central convolutions has been found, the atrophy having been accompanied by induration. A less degree of this would resemble closely the lesion found in cases of Huntington's chorea. It is, therefore, not surprising, that some cases of choreiform movements arising from hemorrhage irritating the motor cortex, or due to a developmental fault, or possibly to a congenital degeneration in this region, should present considerable points of resemblance to these cases, the condition of the cortex being very similar in both sets of cases, although the cause producing it has been different.

No autopsy has yet been made upon any case recorded as one of "congenital chorea;" we can, therefore, only reason from analogy and from the symptoms presented by the patients as to what the lesion is likely to have been in each case.

I now propose to give a short abstract of recorded cases, and to examine briefly the claims of each to be called chorea; prefacing them with an account of my own case, as there is one point in connection with it which I consider to be of very great importance for the purposes of this inquiry.

CASE I.—The patient is a boy, aged twelve years, somewhat small for his age. There was nothing noteworthy during his mother's pregnancy. She had no fright and sustained no shock. The child was born at full time after an easy labor, there being no prolonged delay in the passages, no faulty presentation, and no necessity for instruments. The child was not asphyxiated when born; but from his birth up to the present time he has been in a continuous state of involuntary movement; sudden sharp jactitations and jerkings of the limbs, facial contortions, smacking of the lips, and occasional long shivering inspirations such as are met with in cases of ordinary chorea.

The movements are bilateral, almost evenly distributed, but possibly more marked on the left side than on the right. They cease entirely during sleep.

There is no evidence of any organic disease or mechanical irritation of the brain. The child has never had fits, there is no muscular rigidity to be made out, and the tendon-reflexes are not exaggerated though well marked. The knee-jerks present the peculiarity so often seen in ordinary choreic children, viz., that when the leg is thrown forward in response to the stimulus, instead of falling back at once it remains extended for an appreciable interval. There is no ankle-clonus.

Muscular force is good, and there is no sign of paralysis.

The boy is very bright and sharp, but his education has been neglected and he has been kept away from school a great deal as the other boys tease and torment him on account of his infirmity. He was, however, somewhat slow in learning to talk and walk—being two years old before he talked, and three years old before he walked. His speech is still of a stammering, explosive character, which is sufficiently accounted for by the involuntary movements of the lips and tongue. In other respects he is not a backward child. The movements are, according to his father's account, gradually getting less. Three years ago he could hardly walk across a room without falling about; now he walks very well and merely presents the appearance of an ordinary choreic child.

He has at times suffered from severe (rheumatic?) pains in his joints, particularly in his shoulders. There is no cardiac lesion. As regards the family history, the only important points are that no other member of the family has been affected in the same way, and that the father had a severe attack of rheumatic fever when a boy, and has been subject to "rheumatics" ever since.

The child's father was absolutely certain that the movements had existed from birth, the midwife who attended the mother at her confinement having drawn attention to them. The patient was most carefully observed on several occasions, and the movements carefully watched. They were always typically choreic, and there was absolutely nothing about them to suggest double athetosis, the total absence of weak-mindedness, paralysis, rigidity, and increase of tendon-reflexes tending to confirm the view that the case was one of true congenital chorea.

I therefore showed the patient at a meeting of the Medical Society of London as an example of this disease. Whether the excitement incidental to appearing before so many strangers had the effect of changing the character of the movements or not I am not prepared to say, but the slow, writhing movements of the fingers, toes, and lips on that occasion were as typical of athetosis as the short, jerky movements previously exhibited by the patient had been typical of chorea.

The lesson to be drawn from this case is an extremely instructive one, viz.: that there is no hard-and-fast line to be drawn between the movements of athetosis on the one hand and that of congenital chorea on the other; that the same patient may at one time furnish an example of the one condition, and again under different circumstances be an equally striking example of the other. When we consider how much more frequent cases of double athetosis are than these cases of so-called congenital chorea, that both conditions are usually associated with mental feebleness, and that we have in this case a proof that the same patient may, from the same cause, be at one time an excellent example of the one condition, and at another an equally excellent example of the other, I think we are justified in concluding that there are strong reasons for believing that all the choreic cases have really been cases of double athetosis in its choreic form.

Any one seeing the child as I repeatedly saw him when he was quiet and not excited, especially had he been ignorant of the fact that the movements dated from birth, would have unhesitatingly called the case "chorea;" whilst no one could have hesitated to call the condition presented by the child before the medical society "double athetosis."

In the discussion which followed the showing of the case Dr. Archibald Garrod stated that he had under his care at the Children's Hospital, Great Ormond Street, an almost exactly similar case, in which he had wavered for some time between a diagnosis of congenital chorea and one of double athetosis.

As regards previously published cases, some of the accounts given are so very meagre as to be practically useless, and in some frequently quoted cases there is nothing more than a bare statement that they were choreic, and that the movements had dated from birth.

These I will briefly refer to.

Germain Sée (*Mémoires de l'Académie de Médecine*, 1850, p. 449) mentions that Monod had met with cases of congenital chorea, but although barely mentioning the fact he (Sée) throws doubt upon their nature, and inclines to the belief that they were cases of intracranial or intracerebral disease.

Von Ziemmsen also refers to Monod (*Cyclopædia of Medicine*, vol. xiv. p. 420).

Erdmann (*Sitzungsberich. der Gesellsch. für Natur und Heilkund.*, January, 1867) states that two cases of congenital chorea had come under his notice.

Haven (*Boston Medical and Surgical Journal*, 1881, p. 297), in an analysis of two hundred cases of chorea, mentions that two "were said to be congenital."

Collins (*New York Medical Journal*, vol. lvi. p. 159, and *Journal of Nervous and Mental Disease*, 1892, p. 726) mentions the case of a child suffering from choreic movements which had persisted from birth, and whose mother had also suffered from chorea.

It is obvious that nothing can be deduced, one way or another, as to the true nature of these cases from such scanty data, and they may therefore put aside as useless.

Two papers dealing with the subject I have been unable to obtain (Drake: "A Case of Congenital Chorea," *Western Medical and Physical Journal*, Cincinnati, 1827–28, p. 193. Dunn: "Two Cases of Congenital Chorea," *Virginia Medical Monthly*, 1892–93, vol. xix. p. 825).

CASE II.—Of more fully recorded cases the first in chronological order is that of Mayo (*Outlines of Human Pathology*, 1836, p. 170). This case is quoted in almost every article written upon the subject of congenital chorea; I therefore make no apology for transcribing his description almost in full.

The mother when in the fourth month of pregnancy was much frightened. "She was for two months in a state of extreme nervous illness from this cause, but she recovered and went her full time. She remarked, however, that the child was extraordinarily lively in the womb, so that at times she was overcome by the sensations she experienced. The child, a female, at the instant of its birth displayed the *writhing* motions of chorea (the italics are mine); they have continued ever since. She is now thirty years of age, yet looks but an elderly child. Her head is remarkably small and narrow; she is thin and emaciated; the mind is hardly removed from complete idiocy: she says nothing but an ill-articulated 'yes' and 'no,' and is continually turning and *writhing* herself about, except when asleep."

This description is hardly suggestive of "chorea" as we understand the term of the present day, whilst it would answer admirably, as far as it goes, for a description of double athetosis with imbecility. The occurrence of the word *writhing* twice over is in itself extremely suggestive, as no word could be more inapplicable to the sudden sharp movements of chorea, and no word could be more truly descriptive of the slow twisting movements of athetosis. The mental condition of the patient also is more than suggestive of gross organic cerebral lesions, and there is little doubt that the case was one of imperfect cortical development, of meningeal hemorrhage, or of thrombosis. The first condition I consider to have been the most probable from the history. There is naturally great difficulty experienced in judging of the exact nature of these earlier cases, as we have no account of the state of the tendon-reflexes to guide us. This remark applies equally to some of the subsequent cases, even to some published at a period when such an obviously important point should not have been overlooked.

Richter has recorded two cases.

CASE III.—The mother of the first patient was much alarmed by being in the thick of the fighting in Dresden in May, 1849, toward the end of her pregnancy, and immediately afterward the child, a daughter, was born. From its birth violent clonic spasms "of all its voluntary muscles" were observed, which ceased completely during sleep. Richter frequently examined the child and satisfied himself that the special senses and the intelligence of the infant were normal, and diagnosed the case as one of congenital chorea.

As she grew up the movements gradually became less marked, and as a young woman there were only occasional twitchings of the neck and face, and she was able to do needlework well.

CASE IV.—His second occurred in the daughter of a woman who was greatly shocked and distressed by the sudden death of her husband shortly before the child's birth. Here again there were violent choreic movements observed immediately after delivery which persisted, ceasing only during sleep. These were looked upon as evidence of organic disease of the brain by those who saw the case before Richter. He, however, came to the conclusion that it was a case of chorea, and regarded it as spinal in origin. She learned to walk and talk, but had considerable difficulty with her school-work. She was bright and merry. Her speech was monotonous and complaining in character; and "g" and "ch" were pronounced as "s". When nervous she twisted hands, neck, etc., in a choreic manner.

Both girls were well developed.

In these cases again no mention is made of the state of the reflexes. The description of the movements rather suggests a slight degree of double athetosis than chorea proper, and the slow, steady improvement is in accordance with what one meets with in cases of congenital spastic paraplegia. The lesion must have been a comparatively slight one.

CASE V.—Long Fox (*British Medical Journal*, 1873, vol. ii. p. 9) has recorded a very interesting case of a boy, aged thirteen years, suffering from "congenital chorea." His mother was frightened at the end of the second month of pregnancy. He was born about six weeks before his time. He had had chorea from his birth, and had always been as bad as he was at the time of his admission to hospital, if not worse. Lately he had learned to say a few words. Up to that time he could not speak at all, but could hum tunes in an indistinct way and make various noises. He could not stand or hold anything firmly. His education had been neglected, but he was very sharp and very merry. Most of his movements showed great deficiency of co-ordinating power, but he could combine movements for the purpose of scuttling along the floor in a wonderful manner, one leg being stretched out in front and the other behind, whilst he paddled along with great speed with one hand.

He was almost always in motion, except during sleep, and then was quite still. He had fits at three years old, but not since. There was no rheumatism or heart disease or any morbid family history.

He was put upon arsenic. After a few weeks he began to say more words and was much less restless. He walked with the help of one hand, and could stand without assistance, although on admission he could not lift himself up without being held. He was "exceedingly intelligent." Playing at ninepins brought him on considerably, and so did the association with and imitation of two non-choreic boys in the ward.

This case is an extremely interesting one as showing what may be done by intelligent treatment in such cases. The facts of the boy having been a "seven-months' child" and his having suffered from fits at three years old point to an extreme instability and probably a want of development of the cortical motor cells. At all events, it is justifiable to presume that their control over the lower motor centres was congenitally less than normal, and I am, therefore, inclined to class this case with those of developmental defect in the motor centres in which motor symptoms predominate, and not with true chorea.

Heller's case (*Wien. med. Wochenschr.*, 1876, vol. xxxvi. p. 456) is an example, as I have mentioned above, of an entirely different disorder to those with which I am now dealing, and will be treated separately later.

CASE VI.—Rieder (*Munch. med. Wochenschr.*, 1889, p. 623) has recorded at great length a case of chronic congenital chorea with imbecility. The patient was a woman, aged twenty-six years. There was nothing noteworthy in the family history. Her mother had been frightened during her pregnancy by the sight of a choreic man. From birth she had suffered from involuntary movements of the face and arms; she was also slightly deaf, and this deafness had of late years graudally increased.

She learned to walk at four years of age, and to speak at three; but her speech was very defective, and had not improved. She was irritable and passionate, and her mental power was of a very low order, although she could to a certain extent read and write. She was very easily alarmed.

She was subject to night-terrors, and her sleep was usually very disturbed. A year before Rieder saw the patient she had borne a child, which was the subject of the same involuntary movements as its mother. The child, however, died when little more than a fortnight old.

The symptoms in this case had been marked by progression, the movements being much worse than in infancy. For about a year the patient had complained of pains in the head, coming on every day, and often accompanied by sickness.

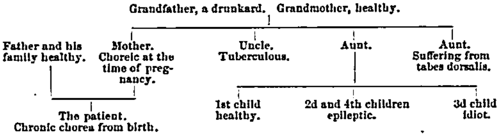
The patient wrinkled her forehead, opened and shut her mouth and eyes, twisted and turned her head, stretched out and bent first one then the other finger, then the whole hand moved, the shoulders, and so on. The movements were most severe in the face, and became more severe on intentional movement, as in the attempt to lay hold of anything. Walking was only accomplished with difficulty.

The pupils were dilated and reacted only sluggishly to light. Sensation was normal. Both tendon and superficial reflexes were increased.

In this case we have sufficient evidence of organic cerebral disease in the mental deficiency, deafness and increased reflexes. That such disease was of a developmental character is highly probable, and this probability is strengthened by the fact that the patient's child had the same developmental defect, as evidenced by the involuntary movements displayed during its short life. This case approaches very closely to Huntington's chorea, especially in its progressive and hereditary nature; but it is certainly very far removed from ordinary chorea minor, and the description of the movements of the hands and fingers is particularly suggestive of double athetosis.

Case VII.—Gray (*New York Medical Journal*, 1892, vol. lvi. p. 169. *Journal of Nervous and Mental Disease*, 1892, vol. xix. p. 726) has recorded a case which he considered to be one of congenital Huntington's chorea. There had been no similar trouble in other members of the child's family, and the general history was negative. The choreic movements had been noticed immediately after birth. The infant was a seven-months' child. Collins remarked upon this case that the lesion was probably one of lack of development of the cortical motor areas, and that the too apparent lack of mental development could be taken as corroborative evidence of this. He might have added, as further evidence, the premature birth of the child at seven months. To call the case one of Huntington's chorea seems a little far-fetched, as it lacks all three cardinal characteristics of that interesting malady, inasmuch as (1) no other member of the patient's family had suffered from the disease; (2) it had not begun in adult life; (3) there is no mention made of its having been progressive in character. It is true that any one of these peculiarities may be wanting in true cases of Huntington's chorea, but when all are absent together there can be little to go upon in making a diagnosis, and in this case the nature of the movements is not described.

Case VIII.—Schlesinger (*Zeitschrift für klin. Med.*, Berlin, 1893, vol. xx. pp. 506, 515) gives a very full account of a man, aged twenty-four years, who had suffered from his birth from choreiform movements which had of late years become worse, as had also a difficulty of articulation from which he suffered, and his intellect was progressively becoming more feeble. His mother was suffering from chorea at the time of his birth, and there was a very neurotic family history, the chart of which is as follows:


Grandfather, a drunkard. Grandmother, healthy.
Father and his family healthy.
Mother. Choreic at the time of pregnancy.
Uncle. Tuberculous.
Aunt.
Aunt. Suffering from tabes dorsalis.
The patient. Chronic chorea from birth.
1st child healthy.
2d and 4th children epileptic.
3d child idiot.

The mother had relapses of chorea lasting several weeks each year for four years after the patient's birth. The patient was apparently stillborn, the labor lasted a long time, and instruments had to be used. Twitchings in his face and hands were noticed from birth; at six months old he had fits which lasted several hours. He was late in learning to walk, and in his fourth year could only stammer a few words. He was backward in his school-work. From his earliest childhood his temper was ungovernable, and of late years the difficulty of walking and speaking had increased, and there was a striking diminution of intelligence and memory. There was no evidence of alcoholism or syphilis.

The chief points as to the state of the patient when he came under observation were that the forehead was continually wrinkled and the eyelids pressed firmly together, the upper lip twitched frequently, the lower one less often.

The right side of the face was much more frequently involved than the left. His speech was stammering and monotonous, but by no means "scanning." The hands and arms were quiet, as a rule, but on excitement they twitched. The fingers were spread out and then suddenly flexed, the hand moved upon the wrist, the thumbs adducted and turned in toward the palm. Spontaneous movements occurred in the toes, and the knees were occasionally involuntarily flexed and extended.

There was no spontaneous movement of the muscles of the trunk.

There was considerable analgesia in front of the lower half of the body on the right side. In both upper arms, particularly the right, there was also marked hypalgesia.

The patellar reflex on both sides was very much increased, but there was no ankle-clonus.

The skin-reflexes were greatly increased. The gait was somewhat like that of an intoxicated man, the feet being kept wide apart so as to give a wide base.

After these notes were taken the patient's condition rapidly deteriorated. The movements increased, and the intellect failed; fits of excitement being now followed by depression with a suicidal tendency. Schlesinger concludes that this was a case of meningeal hemorrhage, but regarded the form the disease took as due to an hereditary predisposition to chorea.

I am inclined to agree with him in his diagnosis in this case, as I think it more than probable that a meningeal hemorrhage was the original cause of these movements and of the patient's condition. The labor was exactly of the prolonged, tedious kind which so often causes congenital spastic paraplegia, and in this case the disorders of movement, from irritation of the cortical motor centres, predominated over the paralysis. The state of the reflexes bears out this view. In a patient with such a family history it is not surprising that a condition closely resembling Huntington's chorea should supervene upon these movements of double athetosis, the already existing organic cortical lesion acting as a predisposing cause. But I am extremely doubtful whether any *rôle* in the production of the symptoms should be given to the chorea which the mother suffered with at the time of the patient's birth. There is quite enough to account for all the symptoms without this.

CASE IX.—Diller (AMERICAN JOURNAL OF THE MEDICAL SCIENCES, 1890, vol. xcix. p. 339) has recorded the case of a female imbecile, aged twenty-six years, a patient in the State Hospital for the Insane, Danville, Pa.

The father was alcoholic, the mother died of phthisis. A sister was also an inmate of the asylum. The patient had been feeble-minded and choreic from early childhood. She became unmanageable at home on account of her petulant, quarrelsome nature, and was disposed to seek improper male companions.

The patient was markedly choreic, the movements being typical. All the muscles were affected and equally. The speech was difficult and halting. The movements ceased during sleep. She stated that she could not remember when she was not affected with the movements, and that she was unable to walk until she was six or seven years old.

In a table which follows (p. 343) Diller enters this case as congenital, and I think, although the evidence given is not conclusive, that it probably was so. But here again we have most likely to deal with a developmental defect of the motor centres, and not with "chorea" in the true sense of the term.

These, then, are the cases from which our knowledge of "congenital chorea" is obtained, and it may be well to recapitulate and to summarize shortly the conclusions that may be drawn from them.

Some of them are too imperfectly recorded to be of any service. Of the remaining ten cases the first (my own) presented under conditions of excitement movements which were indubitably those of double athetosis, and to that category it undoubtedly belongs, although there was no other evidence of any brain-lesion beyond a delay in learning to walk and talk.

Case II. (Mayo's) was also, to judge from the state of the patient's intellect and the writhing character of the movements, an example of the same disease, defective cerebral development affecting largely the motor centres.

In Cases III. and IV. (Richter's) the nature of the movements as described, the mental condition in Case IV., and the slow, steady improvement with lapse of time, exactly corresponding to that which one observes in many cases of congenital spastic paraplegia, all point to a cortical lesion as the cause of the movements. The fact that the muscular jerkings did not entirely cease is also in accordance with this view.

In Case V. (Long Fox's) the patient was a seven-months' child; he had had fits at three years of age, and, in spite of his apparent intelligence, he had not learned to speak at all, although thirteen years old. Here, also, there was probably want of proper development of the cortical motor areas.

Case VI. (Rieder's) furnishes us with abundant evidence of cerebral disease in the imbecility, deafness, and increased reflexes.

Case VII. (Gray's) was a seven-months' child, and the mental capacity was apparently very small. This probably belongs to the same class of imperfect development.

In Case VIII. (Schlesinger's) the prolonged labor, the use of instruments, the asphyxiated condition of the child when born, the movements which followed almost immediately, the imbecility, and the exaggerated reflexes are sufficient to point with almost certainty to meningeal hemorrhage as the cause of the condition. The steady decline in the mental condition of the patient after attaining adult life, and the increase in the movements, certainly assimilate the case very closely to

Huntington's chorea; but in a patient with such a family history of neurosis with an organically damaged brain it is not surprising that this should be the case.

Case IX. (Diller's) is not quite so clear, but the fact of the patient's marked imbecility and the family history point strongly to developmental cerebral defect. It is to be regretted that the condition of the reflexes is not mentioned.

All of these cases were, in my opinion, examples of double athetosis, due either to developmental defect or to meningeal hemorrhage, injuring and irritating the motor cortex. In the two cases which appear to have been progressive (those of Rieder and Schlesinger) the disease approximates very closely to the condition known as Huntington's chorea; but, as in cases of that disease in which autopsies have been made, gross cortical lesions of a degenerate nature, or even actual outgrowths from the meninges, have been found, it is not surprising that the two diseases should resemble one another. It seems to me, however, that there is no justification for the term "congenital chorea" in these cases, and that, if distinction be necessary, "choreiform double athetosis" would be a much better and more truly descriptive title.

Several cases have been published, differing only from the foregoing in that the movements were not observed until some time after birth; *e. g.*, by Richter (*loc. cit.*), Brown-Séquard (*Medical Times and Gazette*, 1863, ii. p. 92), Osler (*Journal of Nervous and Mental Disease*, 1893, vol. xx. pp. 99, 100), and others.

Case X., Heller's case (*Wien. med. Wochenschr.*, 1876, vol. xxvi. p. 456), which I have previously referred to, stands by itself.

The movements appeared soon after birth (how soon is not stated) in an eight-months' child, which weighed only three pounds. They affected the muscles of the head and face, including those of the eyes, the neck, the trunk, and extremities. The tongue was occasionally protruded and again sharply drawn back. They ceased at the end of the second month of the child's life, and did not recur. Small doses of chloral hydrate were given by way of treatment. It may be that these movements were a result of the great want of development of the child, and that they were a continuation of the ordinary intrauterine fœtal movements, as McCann has suggested. ("On Chorea Gravidarum," *Transactions of the Obstetrical Society of London*, November 4, 1891.) But the case remains a unique one, and is certainly the nearest approach to a true case of "congenital chorea" that I have met with in the literature of the subject. Whether the movements were actually congenital or began shortly after birth, is left a little doubtful, the title of the paperbeing "A Case of Congenital Chorea," whilst the text says that at the time of the birth nothing abnormal was noted, and that the movements began soon afterward.

In conclusion, I venture to think that an attentive examination of these abstracts of recorded cases will show that the existence of true "congenital chorea" is extremely doubtful; or has, at all events, not yet been established.

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SYPHILITIC LESIONS OF THE HEART.

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ALTHOUGH as early as 1851 Ricord first called the attention of the medical profession to syphilitic lesions of the heart, but very little advance has been made in the pathology of this condition.

This fact has led me during my service of ten years as curator of Bellevue Hospital to note carefully from a large number of autopsies (1500 or more) coming under my personal observation certain pathological changes in the heart which were unquestionably of syphilitic origin, yet which failed in spite of marked symptoms to be diagnosed during life as manifestations of syphilis.

The pathological changes to which I now venture to call attention are the result of these observations.

The most easily recognized and characteristic action of syphilis upon the heart is the development of gummatous tumors in the walls of that organ. These tumors are situated almost invariably in the wall of the left ventricle, although a number of observers have seen them in the right ventricular wall; but no one, as far as I can ascertain, has seen them in the wall of the auricle. Of eight cases of gumma of the heart reported by Lancereaux, in only two was the wall of the right ventricle affected.

The tumors coming under my observation varied in size from a bean up to a large olive. They presented themselves in two forms, the variations being due apparently to the age and stage at which the gumma was observed. They were generally of a gray or yellowish-gray color, of rather firm consistency, homogeneous structure, and with a firm, cheesy-looking centre of a lighter color than the periphery, yet differing materially from the soft, yellow, cheesy centre of a solitary tubercle.

In one of the cases the tumor observed was of a reddish or reddish-gray color, and of soft homogeneous structure. This was probably a recent gumma, in the centre of which no changes had as yet taken place. The diagnosis of this tumor was aided by finding well-marked gumma in the liver.

These tumors were not circumscribed, but their peripheral portions blended indistinctly with the surrounding muscle, between the fibres of